

Date	Time	I-ident	S/N	P.S. Type	Analysis of All AGS Cold Snake Power Supplies	Fault ID
6-Feb-06	22:00:00	Blue Ring			Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring			2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. ~JLN Yellow ring is ready for operation.	
16-Feb-06	Maint	a20-csnk-sol-ps		Solenoid	The AGS cold snake p.s.'s were ramped down to zero to set the Overvoltage on the helical p.s. to 25V. The AGS cold snake p.s.'s were ramped back up to operating current.	
14-Mar-06	8:47:14	a20-csnk-sol-ps		Solenoid	MCR used the Wrong Ramp Rate when ramping down from operating current of 281.663 amps. Proper Ramp Rate is 0.25 amps/sec but they had ramped at 0.68 amps/sec causing the unit to trip on Error. No real magnet quench occurred, QdPlots did not register this fault and Cryo did not see any signs of heat rise.	Error / Too fast of Ramp Rate
5-Apr-06	5:27:22	a20-csnk-sol-ps		Solenoid	06:30 The A20-csnk-ps tripped on an error fault because the proper ramp rate was not followed. Don Bruno [ags] [ps] They were all ramped down at 3A/sec at the same time when the A20-csnk-ps tripped on the error fault. The t1, t2 and sol should be ramped down to their desired current first and then the A20-csnk-ps should be ramped down at 0.25A/sec. Then the A20-csnk-ps must stop at 30A for about 30 sec. If you know you are going to zero then it is faster to ramp down the t1, t2 and sol at 1A/s to zero. Then just put the A20-csnk-ps into STBY without ramping down. It would be nice if we had a program like the SnakeControl application for RHIC that takes care of all of the proper ramp rates and you just type in numbers. -Don Bruno [ags] [ps] 06:43 I missed the ramp down procedure for the cold snake, causing the power supply to trip on a quench indication. After checking with cryo, they indicate that no temperature rise occurred, and the snake is ready for recovery. -LH	Error / Too fast of Ramp Rate
9-Apr-06	6:58:12	a20-csnk-sol-ps		Solenoid	Apr-09-2006 07:23 An AGS cold snake quench trip occurred around 07:00, though there was no beam in the Ring (Siemens wasn't even pulsing) -jpi, vhs Apr-09-2006 07:40 Don Bruno is investigating from home. -jpi, vhs Apr-09-2006 07:46 There was a qpa fan fault. I will need to send CAS out with a fan interlock jumper plug and make sure the fans are still running with the plug in. -Don Bruno [ags] [ps] Apr-09-2006 08:02 Jumper installed, all three qpa fans are spinning. Don is attempting to bring up the solenoid power supply now, with the helical supply at current. -jpi, vhs Apr-09-2006 08:08 The solenoid is back at setpoint and MCR has the p.s.'s. Don Bruno [ags] [ps]	QPA Fan Flow Switch Fault
12-Apr-06	11:37:50	a20-qb-hub		Quench Heater	FEC hung up and the Reboot failed (software issue to be looked into) causing Module A of the Quench Heater to fire. This caused the fuse to blow. Engineers swapped out Module A for repair. (Time of call 12:14:00 to end of task 13:30:00)	Quench Heater
12-Apr-06	11:37:50	cfe-a18-qd1		Quench Detector	13:50 There was a FEC problem on the A18-qd1 quench detector. The FEC needed to be re-booted. Even though the system was designed to be able to have the FEC re-booted and not cause the quench detector's DSP to trip, I did not want to take a chance and had MCR bring all the currents in the AGS cold snake to zero and then have the FEC re-booted. When the FEC was re-booted it caused the DSP to hang which in turn fires the quench protection heaters. The energy from the heaters did raise the pressure in the AGS cold snake and therefore the temperature by a small amount. The DSP was reset and the quench detector is now working. In looking at post mortem data I discovered that one of the quench protection heater power supplies did not work. We had to replace the heater p.s.. Also I asked the Cryo group to reduce the pressure in the cold snake to near operating levels. -Ganetis [quench]	QD / Controls fce / Quench Heater Blown 125 amp Fuse
13-Apr-06	9:41:17	AGS Cold Snk		All	09:56 The quench was caused by a reset of the a18-qd1 quench detector FEC. A reset of RHIC quench detector FECs was coordinated with MCR and with George Ganetis. a18-qd1 was to be specifically excluded from this reset. It was a mistake on my part that the reset was not carried out as planned. -jpi	QD / Controls fce
19-Apr-06	Maint	Node Card			Node Card not responding properly. Team found UPS appeared to be overloaded and by cycling the power to the unit, communications was reestablished.	Node Card / UPS
20-Apr-06	12:51:30	a20-csnk-ps		Helice	Operating at 2.27amps, this was not a real quench as no heat was generated due to low current and QdPlots did not register the event. Unexplained as to why the supply tripped, possible 3U bucket or the Under Voltage Circuit is malfunctioning.	Off
24-Apr-06	13:31:28	a20-csnk-sol-ps		Solenoid	Snapshot indicates that the Supply tripped on an Error Signal. Last command sent was an ON command. Iref started out at 0.39amps, current indication was 1.12amps and when the ramp up was given, Iref followed but current never moved causing the Error Signal to trip the supply. Not sure if the supply was really on. G. Heppner	Error Signal
15-May-06	2:08:56	a20-csnk-ps		Helice	Instead of using the Auto System to ramp down, MCR ramped the supply manually, using the wrong ramp factor. (Ramped down at 2.81 amps / second rather than the recommended 0.25 amps / second) Did not affect RHIC Operations.	Error / Too fast of Ramp Rate
24-May-06	12:02:38	a20-csnk-ps		Helice	12:23 A20-csnk-ps tripped to the OFF state. The problem may be in the 3u control chassis (one possible place) so I asked MCR if I should swap it out (about 45 min) or they could recover the p.s., then the next time it trips to the OFF state we could swap out the bucket or I could have the bucket ready and CAS could do it later. MCR chose to recover the p.s. -Don Bruno [ags] [ps] 12:47 All of the AGS cold snake p.s.'s are at operating current. -Don Bruno [ags] [ps]	Off
26-May-06	20:53:20	a20-csnk-ps		Helice	Operating at 237.84 amps, the supply tripped to the Off State. Unexplained as to why the supply tripped, possible 3U bucket or the Under Voltage Circuit is malfunctioning. CAS was ready to swap out the 3U bucket but MCR elected to retry.	Off
26-May-06	21:26:34	a20-csnk-sol-ps		Solenoid	Snapshot indicates that the Supply tripped on an Error Signal. Last command sent was an ON command. Current did not follow the Iref. G. Heppner	Error Signal
28-May-06	8:09:06	a20-csnk-ps		Helice	Operating at 237.84 amps, the supply tripped to the Off State. Unexplained as to why the supply tripped, possible 3U bucket or the Under Voltage Circuit is malfunctioning. CAS was ready to swap out the 3U bucket but MCR elected to retry.	Off
29-May-06	8:55:42	a20-csnk-sol-ps		Solenoid	Power Dip	Power Dip
29-May-06	9:48:20	a20-csnk-sol-ps		Solenoid	Snapshot indicates that the Supply tripped on an Error Signal. Last command sent was an ON command. Current did not follow the Iref. G. Heppner	Error Signal
29-May-06	16:35:34	a20-csnk-ps		Helice	Operating at 237.84 amps, the supply tripped to the Off State. Unexplained as to why the supply tripped, possible 3U bucket or the Under Voltage Circuit is malfunctioning. CAS was ready to swap out the 3U bucket but MCR elected to retry.	Off
29-May-06	17:21:58	a20-csnk-sol-ps		Solenoid	Snapshot indicates that the Supply tripped on an Error Signal. Last command sent was an ON command. Current did not follow the Iref. G. Heppner	Error Signal
31-May-06	Maint	a20-csnk-sol-ps		Solenoid	Replaced qpa fan switches on A20-csnk-sol-qg J. Wilke	QPA Fan Flow Switch Fault
31-May-06	Maint	a20-csnk-ps		Helice	Inspected the 3U Chassis inner connections, By-passed the Under Voltage Circuit, checked the Line AC connections from the AC Power Chassis above in the same rack, checked the Node Card Cable at both ends. Tested Spare current regulator card for A20-csnk-sol-ps up to 10 amps G. Heppner	Off

AGS Cold Snake Power Supplies

Date	Time	I-dent	S/N	Loc.	SQ Ref:	Analysis of Snake / Spin Rotators	Fault ID
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
23-Feb-06	14:03:48	bi5-rot3-2.3		5C	MSQ-003	Snapshot indicated that the Iref was scrathy while MCR was ramping up which in turn the current followed suite. While testing for relays, we checked the LOW RES card signals and they appeared lower then usual. Will be replaced during the next maintenance day, March 1, 2006. The 5b-qd1 Quench Detector tripped the supply due to an eratic signal. TECH REPORT Logged in at 15:47: The current regulator card was swapped out for bi5-rot3-2.3 because of bad relays on the board. -Don Bruno [rhic] [ps]	wfg-error
1-Mar-06	Maint	bi5-rot3-2.3		5C		Replaced the LOW RES card and took new data. Numbers appear a whole lot better so returned original Low Res Card s/n 154 back to Controls Group. GPH	Low Res Card
10-May-06	Maint	yo5-rot3-1.2		5C		Replaced a Fan fail on Y5-rot3-12 (2nd back from DX Magnet). MD and GPH	Fan Fail
18-May-06	19:21:52	yo5-rot3-2.3		5C		Gregg, Just to keep you up to date, I think there was a power dip today at the time this rotator tripped. I know there was a power dip so I am guessing that is why this rotator tripped. Don	Power Dip
29-May-06	8:55:00	yo8-rot3-1.4 yo8-rot3-2.3		9A	Power Dip Recovery PR-046	2006-May-29 08:55:00 Physics is off, a fairly severe power dip appears to have occurred. The Linac is completely down, the Booster and AGS main magnets have tripped off. Both RHIC rings have quenched, along with several RHIC snakes and Rotator. We are receiving pump room alarm for the Oppis cooling system, the Booster main magnet power supply and the PHENIX cooling tower. 2006-May-29 11:15:00 J. Drozd is coming in to reset a node card in alcove 9a. (Affects Yellow Rotator Magnets yo8-rot3-1.4 & yo8-rot3-2.3)	Node Cad Reset
15-Jun-06	16:21:00	bi9-snk7-2.3		9A	Alarm Log	For the longest time, this supply was indicating a "WfgRefRangeError" a difference of approx 2.24 amps between the wfg and the Current. Time permitted, access allowed 17:40 D. Bruno reports that the errors for bi9-snk7-2.3-ps are being caused by current regulator card. He will replace the card at the next opportunity. -LH 17:48 The wfg output = 323.009. The low res card output = 323.4A. The Setpoint card at the p.s.=323.4A. The setpoint at the current regulator card = 320.4A. This is where the problem is. The current readback from the buffer card to the MADC's is 321A. The pet page setpoint MADC readback is 321.49A, the pet page MADC current readback is 321.31A. The current regulator card should be repalced when there is time. -Don Bruno [rhic] [ps]	Test
16-Jun-06	9:05:00	bi9-snk7-2.3		9A	Ref to 15-June-06	Tech Team Rich Conte and Mitch DeLaVerne replaced the Current Regulator Card and tested to Operational Current through MCR.	Current Reg Card

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Date	Time	I-dent	S/N	Loc.	QLI Ref:	Analysis of Bruker - Sextupoles	Fault ID
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. –JLN Yellow ring is ready for operation.	

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Date	Time	I-dent	Loc.	QLI Ref:	Analysis of 6000 Amp Quench Switches 1010A	Fault ID
6-Feb-06	22:00:00	Blue Ring			Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring			2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. –JLN Yellow ring is ready for operation.	
24-May-06	6:24:08	Y9DQPSW Y10DQPSW	10A	PR-044	07:14 Air flow fault on one of the 6000A quench switches in 1010A. I spoke with Tim Costanzo and Joe DeCicco of CAS. They will put a jumper plug in and make sure the fans are still spinning after MCR brings the yellow link back up. If one of the fans are not spinning I need to be contacted again and we will have to replace the broken fan. -Don Brun [rhic] [ps] Y9DQPSW - status: Air Flow Fault. Day Crew invetigated and found all 3 filters clogged especially the lower filter (closest to the building entry door) and also found Y10DQPSW filters partially clogged. Replaced all 6. MD and GH.	Fan
31-May-06	Maint	Y9DQPSW Y10DQPSW	10A	PR-044	Y9DQPSW and Y10DQPSW quench switches Fan switches (6 per unit) replaced	
23-Jun-06	23:32:00	Y9DQPSW	10A	MCR	2006-Jun-23 23:32:00 W. Louie has been contacted to investigate a UPS fault indication for the Y9DQPSW quench protection switch that was received when the RHIC power supplies were shut off for the storm. 2006-Jun-24 00:30:00 The alarm eventually cleared, and Wing did not find any problems.	UPS Fault

Date	Time	I-ident	Loc.	QLI Ref.	Analysis of Quench Detectors	Fault ID
Analysis of Quench Detectors						
6-Feb-06	22:00:00	Blue Ring			Official Hand Off of the Blue Ring to MCR in Run 6. Machine Setup 22:00 G. Ganev reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring			2006-Feb-11 21:00:00 George is done for the night, and has given us the green light. -R.N. Yellow ring is ready for operation.	
20-Feb-06	12:19:43	c/c-10-qd2		MS-010	2006-Feb-20 12:01:00 c/c-10-qd2 reports a no heartbeat fault on the alarm display. 2006-Feb-20 12:00:00 While trying to reset the FEC 10-qd2 fit request the Quench Detector prevented by contactless first. 2006-Feb-20 12:22:00 resetting c/c-10-qd2 after consulting with G. Ganev. 2006-Feb-20 12:20:00 The Yellow Quench link was pulled as a result of resetting the Quench Detector FEC.	Quench Detector Cromack FEC
21-Feb-06	23:41:00	3c-qd1	3C	George Nofziger	2006-Feb-21 23:41:00 G. Ganev calls to report a problem with the quench protection for the snakes in the 3C skids. He will require ~1 hour to diagnose and repair the problem from here. This work will include changing the snake currents, preventing us from injecting into RHIC. 01:01 I have found a problem with channel assignments in the 3c-qd1 quench detector. The initial testing should have found this but it did not. The problem was corrected and now all the signals are correct. -Ganev.	Software Channel Assignment
22-Mar-06	18:10:37	c/c-7-qd1	7C	PSQ-001	2006-Mar-22 17:56:00 Communications have been lost with c/c-7-qd1. 2006-Mar-22 18:05:00 AFPS's off. We successfully ramped the RHIC magnets to zero before resetting the FEC. Only rotators are on the 7-qd1, so the permit would only been down while the rotators were tripped as a quench due to the quench detector FEC error. Mar-22-2006 14:23 The Power Supplies for these magnets where at Idle Current (less than 1 amp) because the magnets did not quench. All four (4) Rotators had tripped due to the c/c-7-qd1 reboot as per MCR. -G. Hammer [John] [quench]	Quench Detector Cromack FEC
22-Mar-06	14:54:53	9c-qd1	9C	PSQ-002	There was a loose gas cooled lead voltage tap wire on b9-snk7-2.3 that caused this snake request to quench at 14:54. Dan O'Leary went into investigation, along with Wang Lianze and Gregg Heppner, and Dan found the loose wire. It was repaired and he checked all the other wires while we were down there. -Dan Bruno [John] [quench] Detailed later. TEL:3, positive lead Voltage Tap Wire B9SNK7B1_GL located at the Quench Detector in Above W. Dan Brad Pugh found we were properly secured. The Service Terminal was found fully tightened but the wire somehow was never properly positioned into this connector and was found to be just making physical contact. This caused the Quench Detector to fire, tripping both magnets at Operating Current. First b9-snk7-2.3 Quenched and approximately 2.16 seconds after, heated gas cooled b9-snk7-1.4 to quench. G. Hammer	Gas Cooled Lead B9SNK7B1_GL Faulty Wire Tap
23-Mar-06	15:18:20	c/c-5s-qd1	5B	PR-005	16:55 We had to reboot a front end c/c-5s-qd1 due to a response failure indication that occurred during the physics store. This caused the quench links to drop. In the meantime, during the store into RHIC, two snakes suffered a real quench b9-snk7-2.3 and 1.4. The link was caused by a faulty voltage tap for a gas-cooled lead in the snakes, and has caused elevated temperatures around the ring. We used channels from Cryo before proceeding with recovery. -L.H. Blue Recovery Completed at 16:51:11 and Yellow Recovery Completed at 17:03:00. Scenopole Magnet in 5B required Re-training since the Quench Detector 5b-qd1 was reset and was done by MCR Personnel. -G. Hammer	Quench Detector Cromack FEC
24-Mar-06	19:02:52	c/c-6s-qd1	6B	PR-006	2006-Mar-24 19:17:00 Front and 6b-qd2 shows a response failure, fit indicates that a reboot of the front-end is required. We contact W. Lianze for assistance. W. Lianze confirms fit front and 6b-qd2 will require a reboot. He asks us to confirm the situation with L. Huff. We have a message for L. Huff. W. Lianze requests that we contact J. Gould to assess the network traffic for front and 6b-qd2. Wang suggested that the volume of network traffic at the front end may account for its failure and the failure of 6b-qd1 yesterday. We are preparing to reboot the 6b-qd2 FEC. We must ramp the magnets in RHIC to zero current. Rebooting c/c-6s-qd2. 2006-Mar-24 19:34:44 Quench link for yellow is recovered. We begin the magnets ramp. 2006-Mar-24 19:40:00 Hystronics ramp is complete.	Quench Detector Cromack FEC
25-Mar-06	23:45:00	c/c-12s-qd2	12A	PR-008	23:45 Quench Link Interlock in Yellow ring First system center drop was 46-time A1 (23:45:00 160166) - Separator 23:45 Beam Abort, 12s ps1A dropped Yellow Quench Sequencer 23:59 This quench is happened because we had to reboot c/c-12s-qd2. -NAK	Quench Detector Cromack FEC
31-Mar-06	16:31:36	c/c-9b-qd1	9B	PR-009	Radiation Effects to the 9b-qd1 quench detector For the 9b-qd1-pa trip, Oglethorpe time and date are incorrect for this event. (light) 04052006, 22057.02, 2s after the last 2 Quenched (Signal) TDS, VT In 10104052006 22057.77 [John] Mode: CLC1111 was indicated when the actual date was 04/07/2006 and the Time of the Event was 15:15:57. George Ganev was notified and looked into the issue. The Photo for the wrong Date and Time are the ones to use.	Other (Rad)
7-Apr-06	15:15:57	2b-qd1	2B	PS Fail	Sequence of Events: 2006-Apr-06 22:28:53 Cryo control reports that they have lost communication with lead flow in the 6-c/lick sensor. They request that the cryo/lick server be restarted. 2006-Apr-06 22:40:00 Cryo reports that they are continuing to have communication difficulties. The problem is related to the response failure indication from c/c-6b-qd2. The front end will require a reboot in order to restore communication. We leave a message for L. Huff and then call G. Ganev for assistance. 2006-Apr-06 23:10:00 G. Ganev has called the cryo control room and determined that the refrigerant system is stable and will restore control operation in 30 min until the front end 6b-qd2 can be reset. We will reset the computer at the end of the present store. 2006-Apr-06 01:00:00 RHIC physics ends. 2006-Apr-06 01:25:24 Beam is aborted in RHIC due to a slow loss radiation monitor interlock from 6b-qd2. The interlock occurred after we had manually aborted beam in the yellow ring in preparation for restarting the sequence in blue. We ramp down to park to allow c/c-6b-qd2. 2006-Apr-06 01:31:16 After ramping down to park in RHIC, we reboot c/c-6b-qd2.	Quench Detector Cromack FEC
12-Apr-06	21:41:47	c/c-9b-qd1	9B	PR-026	2006-Apr-12 23:23:58 Summary: Accelerator Beam Experiments ran for 7.5 hours this shift. Afterwards c/c-9b-qd1 was reset which brought down both the Yellow & Blue quench links. Once the quench links were reconnected, the scenopoles associated with the 9b skids had to be restarted. As at the end of shift RHIC has been put through a hysterisis cycle and is being prepared for a 11111114-64 bunch pattern. -G.	Quench Detector Cromack FEC
12-Apr-06	23:28:44	c/c-6b-qd1	6B	PR-027	2006-Apr-12 23:30:00 6b-qd2 is now dead. MCR consulted G Ganev per fit reset instructions, he advises us to go ahead with the reset. Ramping to zero. 2006-Apr-12 23:54:00 Quench links are back on. Hystronics ramp.	Quench Detector Cromack FEC
13-Apr-06	9:38:40	c/c-1b-qd1	1B	PR-028 / 029	Communications Failure of the c/c-1b-qd1 Quench detector required a Re-boot. It was decided to Re-boot all c/c Quench Detector front ends this time since there has been multiple communications faults with the c/c-qd's including 4 within the last 24 hours. This rebooted the Blue Ring c/c-qd's. -G. Hammer	Quench Detector Cromack FEC
16-Apr-06	13:56:49	c/c-10-qd1	10A	CRYO	2006-Apr-16 13:56:49 Cryo reports that they have lost communication with the 10-c/lick sensor. After inspection, we find that c/c-10-qd1 indicates a no heartbeat condition. After leaving messages for L. Huff and W. Lianze as well as conferring with G. Ganev, we reboot the FEC, restoring cryo communication with the sensor.	Quench Detector Cromack FEC
18-Apr-06	Minor	All c/c-qd's	All	Minor	Apr-18 2006 22:09 All 25 quench detector FEC's were reset via a new subset (14). Every quench detector was tested for data transfer between the QD FEC's to the window based server. All data transfers were tested and quench recovery steps that involve the QD were also tested. No problems were found. The final test will be when the overall system is reset when the ring becomes operational. -Ganev [John] [quench]	Preventative Comm. Loss
25-Apr-06	10:28:06	c/c-10b-qd1	10A	PR-032	Alarm Page indicated at 07:40:28. No Heartbeat, response failure. -scf033 ps had gone. Notified the proper personnel. GH 11:21 This Blue Ring Qd1 was due to a reset of the c/c-10-qd1 Beam Number 7 of the Antineutrino Analysis. Observation: Both trips had been ramped to zero current and all 4 DX Hectors in 1010A had been fired while the DX Magnet was at low current. -G. Hammer [John] [quench]	Quench Detector Cromack FEC
2-May-06	4:15:25	c/c-5s-qd1	5A	PSQ-016	The 5c-qd1 quench detector tripped because of a hardware problem with the temp. compensation channel. I have turned the temp. compensation off in this quench detector for now. -c/lick [John] [quench] Active magnet in single turn.	Temp Compensation Channel
3-May-06	9:15:00	c/c-5s-qd1	5A	MCR / Ref to PSQ-016	Found Channel 13 of Card 1 (Dual Gain Max. Card) that is responsible for the Temperature Compensation Channel (Calibration Channel) was reading 0.0v when norm operation should have been 1.5v. Replaced Card and returned system back to operation. D. O'Leary, W. Lianze, G. Heppner	Temp Compensation Channel
1-Jun-06	4:27:43	c/c-1b-qd1	1B	PR-048	16:30 The Blue link now comes back like an intermittent cable connection between the 1b-qd1 quench detector and the permit module. This should be checked soon. This quench detector is located in the 1B skids. -Ganev [John] [quench]	Other (Cable)
1-Jun-06	9:56:10	c/c-1b-qd1	1B	PR-050	Ref to PR-048. Tinned access was granted when PR-049 (3-grain Todd's Box Failure), Channel and inspected K-lick Connections at Cables. Quench Detector used the Permit Module Chassis. Tap test and Wiggle Wire Test all areas that might have effect, could not get another fail. Measured Permit Cables, both indicated Open and then continuity ~ 1.1 Ohm (good). Then, the Orange Signals to the Permit Module failed during Analysis and required that the 1b-qd1 Quench Detector be Restarted. Wang Lianze & Gregg Heppner	QD Restart
13-Jun-06	8:44:34	c/c-2b-qd1 c/c-2s-qd1	2B	PR-059	10:28 Tom Nolan, Jeff Wilke and Gregg Heppner are swapping out the UPS for the quench detector in 1002B. They will contact Wang Lianze when they are done. Wang will get c/lick quench detectors going and then contact MCR. -Don Bruno [John] [ps] 11:35 The Blue and Yellow Link tripped due to a UPS Fail causing a loss in power to the Quench Detector Back in Beaming 2B. This loss of power also caused all 4 Ds Magnet Hectors in Blue. -G. Hammer [John] [quench]	UPS Fail

Date	Type of	WX	Maintenance Work Performed during Physics Run 6y65
16-Feb	Maint	Sunny	17:38: 1) The following ice ball tree heaters were investigated, all were found to be operational, no repairs needed: a. Y8-q7, b. Y10-q7, c. Y12-q6, y12-q7, d. B10-q7. 2) All of the RHIC snakes were ramped down to zero and put into stby for dx magnet training. All of the RHIC snakes are back ON and have been ramped back up to operating current. 3) The AGS cold snake p.s.'s were ramped down to zero to set the Overvoltage on the helical p.s. to 25V. The AGS cold snake p.s.'s were ramped back up to operating current. 4) Two hysteresis ramps were done with the RHIC p.s.'s. -Don Bruno [rhic][ps]
21-Feb	Maint	Sunny	16:45: 1) The following ice ball tree heaters were investigated, all were found to be operational, no repairs needed: a. Y8-q7, b. Y8-q8, 2) All of the RHIC snakes were ramped down to zero and put into stby for dx magnet training. All of the RHIC snakes are back ON and have been ramped back up to operating current. PLEASE DOUBLE CHECK THE SETPOINTS ON THE RHIC SNAKES. 3) The injector p.s.'s are all on at 1 amp. 4) Investigate y10-q8 because it tripped on a DDOC fault. We did not find anything wrong so we swapped out the voltage regulator card which has the DDOC circuit on it. 5) Y09-est-ps was run up to 10A to fine tune the resistance of the DC cables for the quench detector. 6) Polarity checks were done of y110-q8-ps and 2 magnets out of 4 for y12-q8-ps. No problems were found. 7) Dx magnet training, one magnet was trained. See George's note in the e-log. 8) One Hysteresis ramp was performed. -Don Bruno [rhic][ps]
28-Feb	Maint	Sunny	23:07: We handed the RHIC p.s.'s back to MCR after this ramp at 19:50. 1) Swapped current regulator card, firing card and buffer card for y09-q87ps. 2) Replaced J9 D connector and 3u chassis backplane of y09-q87ps. 3) Swapped out current regulator cards of y01-q88-ps and 38-q89-ps. 4) Replaced gate drive wire to one SCR in b2-q7-ps. 5) Replaced bad qsa fan switches in 4 qsa's in 2B and 1 qsa in 4B. 6) Replaced one qsa in 4B because of bad fan switches. 7) Swapped out b5-est-2.5-Low Res card. 8) Tested most of the new TAFE blue quench recovery and yellow quench recovery. 9) Checked polarity of b02-v3-ps. 10) Checked leakage current of sector 6 spin rotator tree heaters. 11) Replaced node card cable of b11-e4-ps. 12) Added fans to magnet trees BRQ1, BRQ3, B9Q3, B12Q1, Y2Q1, Y2Q2, Y2Q3, Y9Q1, Y9Q3. 13) Replaced bad ice ball temperature sensor Y10-17TB. -Don Bruno [rhic][ps]
15-Mar	Maint	Partly Cloudy	16:44: 1) Swapped 3 channel isolation amplifier board of y09-q87 and y10-q7. 2) Repaired connector on SCR gate of y13-q7. Checked gate drive outputs of b8-q7 and they all looked good. 3) One Dx magnet was trained BTDZ, see George's comment at 16:30. 4) Swapped out qsa fan switches for y012-q2, y012-q11, and y13-q7. The original switches were left in for b8-q7. The qsa fan interlock jumper plugs were removed for these four. Added a jumper plug to b05-q8-ps and y13-q4-ps. We now have qsa jumper plugs in b05-q9, y012-q13 and b010-q6 and y13-q4-ps. 5) Labeled tree heater circuit breakers properly in sectors 2 and 5. 6) Tested new version of TAFE blue and it was ready yet. 7) Checked wiring of ground fault circuit in warm dipole p.s. in 10A, and also fixed voltage readback. 8) Worked on Off trips of y09-q8-ps and y110-q8-ps. 9) Worked on sector 1 voltage monitoring. This will continue on the next maintenance day. 10) Locked out AGS cold snake and unlocked. We brought the AGS cold snake p.s.'s back up to setpoints but someone should check these setpoints are correct. 11) We also brought the RHIC snakes and rotators to zero current. Someone should check these have been restored to the correct values. -Don Bruno [rhic][ps]
17-Mar	Maint	Sunny	09:49 I put y13-q42 into the OFF state to bring down the yellow link. This is in preparation for a Dx magnet training quench. We don't want to ramp yellow. -Don Bruno [rhic][ps] 11:07 4B DX magnet tripped a B4DX quench was located at B4DX. Checked all quench detector signals and there are no problem with this high current quench. The blue arc dipole current was 4816 Amps. The yellow ring was not powered during this quench. -Ganets [blue] [quench] Data Store performed for low current test on y05-est-ps from 0.01amps to 0.30amps for possible low energy run. -G. Heppner
28-Mar	Maint	Sunny	18:53 RHIC ps Maintenance for 3/28/06 1) Installed more voltage monitoring in sector 1 2) Replaced gate drive board of y012-q43-ps. 3) Reset node card in rack 6 of alcove 9A 4) Replaced b11-d87 compensation board. 5) Ramped blue and yellow snakes to zero and back up to setpoint manually. Please check that the snakes are at the correct setpoint and that the y10-q8-ps has a problem with a filter on the vrf watchdog which controls will fix tomorrow. 7) Setpoint polarities were checked on y01-cq10, y04-cq6, y05-cq10, y09-cq10, b06-cq10, y17-cq9. The polarities match the drawings. 8) One wire temperature sensors were mounted on three XARC90 magnets and 3 YARC90 magnets. The cable was also pulled in for these 3 magnets in X and Y. Only 2 sensors were connected. The rest will be connected on the next maintenance day. 9) A dx magnet was trained. See George's comment at 12:21. 10) Performed one hysteresis ramp. -Don Bruno [rhic][ps]
4-Apr	Un-Maint	Mixed	17:19 RHIC PS Work performed on 4/4/06 [Scheduled Maintenance due to Substation Fail, Ref to P8-418] : 1) Swapped out y12-q88-ps. 2) Swapped the sectopole magnet leads on y04-cq9. 3) Swapped out bad qsa fan switches for y13-q4 and b03-q47 and removed their qsa fan interlock jumper plugs. Voltage on both plugs now measure 2mV with new switches. 4) Installed a qsa fan jumper interlock plug for b12-d88-qg, voltage on plug = 15mV before plug installed. 5) Hysteresis ramp. 6) George could not do any dx magnet training quenching because of a control problem (network switch being reset?) which caused cryo to lose information they needed for their magnet flows. This in turn led to snake magnet quenches which led to the blue and yellow rings quenching from the hot gas of the snake magnets quenching. -Don Bruno [rhic][ps]
19-Apr	Maint	Sunny	Apr 19-2006 16:48 RHIC PS Work performed on 4/19/06 : 1) Checked all qsa fan plug voltages. 2) Swapped out buffer card for b14-q4 and now the voltage readback on pull looks correct. Jim did not find anything wrong with the buffer card. 3) Added y110-d86, y04-q27, and b14-q4 qsa fan plugs. 4) Replaced original quench heater that was removed for AGS cold snake. 5 RHIC snake p.s.'s are in STBY. 6) Performed a hysteresis ramp with p28. 7) All RHIC p.s.'s left at Injection. 8) George will be doing dx magnet training this evening. The control system should not be disturbed unless you check with George first. -Don Bruno [rhic][ps]
3-May	Exper Access	Cloudy / Rain	May 3, 2006, 12:23, RHIC PS Work performed on 5/3/06: 1) Swapped out current regulator card for b01-q11 because of a bad relay. 2) Fixed problem with y0-q11. Swapped out a card. 3) Found loose ac connections on y05-tv17. They were tightened. This could have been the reason for the off trip on 5/2/06. 4) Did not find any loose cables on the y10-q7 ps but the ps was tripping last time because one cooling fan was broken. This ps was being checked because it tripped off on 5/1/06. 5) Tested new snapshot server with Jonathan Laster but it did not work, so we will try again on the next maintenance day. 6) Turned on warm dipole ps in 1010A to make sure it was operational and it was. 7) We were delayed in handling the p.s's back over to MCR because of a false alarm on the alarm screen for y0-q11 which I did not know how to clear. -Don Bruno [rhic][ps]
10-May	Maint	Rain	20:11 RHIC ps maintenance performed on 5/10/06: 1) Swapped out b8-d02-ps. 2) Fixed one wire temp sensing Y10. 3) Investigated ground fault on YARC90 that was reset last night but right now nothing was found. We will probably look at this some more the next maintenance day. We ran up XARC90 and YARC90 and they looked ok. 4) Repaired rotator magnet cover fan. 5) Did self check of quench detector UPS's. 6) Replaced QSA fan switches in 5 QSA's. 7) Connected the one wire temp sensors in YD1-YD3, XD1-XD3 still need to be done. 8) Replaced b12-q4-ps. 9) Installed heat sinks on IC drivers on b1-nq1. 10) Tried to test new plc program corrector fault into permit but it did not work this time. We will have to try again. 11) Data store done on some RHIC p.s.'s at park only. 12) Hysteresis ramp performed. -Don Bruno [rhic][ps]
31-May	Maint	Overcast / Warm	21:51 RHIC p.s. Maintenance Performed on Wed May 31st: 1) 1010A 6000A quench switches Fan switch replacement. Two Quench switches had 6 switches in each quench switch. 2) Replaced YQ2 Thermostat and heater. 3) Installed one wire temp sensors on XD1-XD3. 4) Replaced qsa fan switches on A20-csuk-04-qg. 5) Removed A20-csuk-ps 3u control chassis and jumpered out under voltage and checked all connections. Checked node card cable connections at node card and at 3u control chassis. Connections cleaned, and tightened but nothing loose was found. The ac connections to the 3u control chassis were also checked. The backhells were found to be off the D connectors but the wires were ok. We are hoping this will fix the OFF trips of the A20-csuk-ps. 6) Tested Spare current reg card for A20-csuk-04-ps up to 10 amps. 7) Replaced y01-q41-ps to y01-q41-qg signal cable. 8) Tested Ramp p28 (250GeV). One issue with the ramp is that the q's ps is set at a max value of 100A but the vrf wanted them to go higher so this need to be looked at. 9) Tested Ramp p23 (31GeV). This seemed to work fine, no issues here. (Continued on the next line)
31-May	Maint	Overcast / Warm	10) Tested Ramp p23 (31GeV). This seemed to work fine but we did a data store of the p.s. currents with the quench detector which we will have to look at. 11) There is a power supply and qsa problem with the p29 ramp. b09-q89-ps trips on an error fault and must be replaced. b8-d88-qg needs to be looked at because the IGBT's are not sharing current equally. We cannot run p29 until these 2 problems are fixed. We estimate that we need 8-12 hours to fix these 2 problems because we need the line crew to lock out circuit breakers for the main p.s.'s in the substation of 1004B. We are not allowed to throw the disconnect switches in 1004B for the main p.s.'s. We also need time to measure the current in the 2 IGBT's of b8-d88-qg in order to fix the problem. 12) We were delayed in finishing our testing because of what we believed to be network problems on the quench detectors. 13) Recovered the snakes and rotators. 14) Ran the sectopole p.s.s at 10A so the quench detector could store the resistance of the DC cables. 15) MCR Performed Hysteresis ramp with p28. -Don Bruno [rhic][ps]
8-Jun	Maint	Cloudy	19:39 We were unsuccessful in powering the rings to full current. We did repair the b6-d88-qsa which took 6.5 hours. The b09-q89-ps was also replaced in the morning. We then tried our 1st ramp and we had a problem with the replacement for b09-q89-ps. We had to replace it with another p.s. The line crew has to be called every time we want to swap out a p.s., so it takes a lot longer to do. After that p.s. was tested to it's operating current we then tried another ramp. This time b03-q6-ps caused the link to trip and we had to replace the current regulator card. Also on this ramp the yellow main quad tripped on a current monitor fault. At this point we gave up after trying two ramps. It may take a couple of shifts to get the system to full current. -Ganets [rhic][ps]
June 20 to June 21	Switch over to 500GeV	HHH	Included during this period was the y01-q41-ps Signal Cable (Ribbon Cable from J102 to J11). Internal of Power Supply) Time allowed was 12 hours = 720 minutes. Actual Time = 885 minutes. CEPS is responsible for 165 minutes. Ref to QLI Events for addition time against CEPS. Switchover to 500GeV: L/D (June 20, 2006) = 17:25:25, L/U (Back to MCR June 21, 2006) = 03:30 1) Work on the Mains (Installed a Capacitor Filter on the Main Contactor of the Blue Main Dipole. Searched down loose connections or other causes for the Lost 24 Volt Signal in the Blue Box of the Yellow Main Quad) 2) Quench Detector Software Changes and Fixes 3) B03-q4-qsa Fan Bypass Jumper Installed 4) B2-d88-qsa Fuse Fault (Thermal Checked all 4 IGBT appeared to be sharing equal current. Inspected all connections, replaced all 4 IGBT Drivers of which one appeared to have exhausted capacitor failure. Otherwise unexplained) 5) Y17-est-ps Quench resulted from modified end of the Ramp (MCR Issue) 6) High Power Test to 5000 amps for over one hour (Inspected all power supplies during this period)

Date	Time	I-dent	S/N	Type	Loc.	QLI Ref:	Analysis of QPA's	Fault ID
Summer 05	Prep for Run 6	ALL	All	All	ALL		Modified with the Fan Bypass System. Too many Fan Faults in the past due to Faulty Air Vane switches. This new system will help bring back Operations and minimize down time during the off shifts only if actual fans are okay.	
06-Jan-06	Prep for Run 6	yo1-sxf	1046	QP02	1B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	bo3-sxd	990051	QP02	3B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	yi3-sxd	990047	QP02	3B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	bo7-sxf	990045	QP02	7B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	bo11-sxf	990058	QP02	11B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	bo11-sxd	990055	QP02	11B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
06-Jan-06	Prep for Run 6	yi11-sxd	990043	QP02	11B		SCR Driver Card contained the wrong value resistor causing the FET's to short. Replaced Resistor with proper value, tested and restored to operations. J. Drozd	?
6-Feb-06	22:00:00	Blue Ring					Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
7-Feb-06	4:05:00	bo7-tq4			8B	MS-001	04:05: The Blue ring quench recovery is failing on what appears to be a fan fault on the quench protection assembly (QPA) for the bo7-tq4-ps power supply. G. Ganetis is investigating the problem from home. 04:15: G. Ganetis suggests that the fan on the QPA be bypassed by CAS. This supply is not keeping the main quench link down so we can begin threading the beam into RHIC while CAS works on bypassing the fan interlock on the QPA. 04:20: D. Bruno has been called to instruct CAS on the proper QPA bypass procedure. 04:52: CAS has completed the QPA fan bypass for bo7-tq4-ps. The supply is now functioning properly. Tech Team replaced 2 fan switches during the day and removed the bypass jumper for the fan circuit.	Fan
09-Feb-06	Prep for Run 6	y6-q89	990163		6B		Replaced Controller Board. Tom Nolan	
11-Feb-06	23:00:00	Yellow Ring					2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
11-Feb-06	Prep for Run 6	y6-q89	990167		6B		y6-q89-gpa swapped out because ON status would not go away on the QPA. Another qpa in the same slot had a problem last week because the fan fault would not go away and it turned out to be something on the controller card. Tech Report 2-15-06: Ribbon Cable End of P6 that mates with J6	On Status
1-Mar-06	maint	bo3-qf6	990097	QP08	4B		Tech report: One of many that had the new bypass fan jumper installed to prevent false air flow trips, this QPA did in fact have faulty Fan Switches and required replacement. New QPA installed is s/n 990104 by JW and TN.	Fan Switches
1-Mar-06	maint	Multiple		All			Fan Switches Replaced: yi2-qf3-gpa (3), yi2-qf9-gpa (3), bi1-qd2-gpa (2), yo1-tq6-gpa (2), b-qtrim-gpa (3). A total of 13 switches. TN and JW	13 Fan Switches
31-Mar-06	22:18:55	bo3-qd7			4B	PR-011	2006-Mar-31 22:18:00 A Blue QLI occurred during the hysteresis ramp, specifically while the magnets were ramping up from part to injection. bo3-qd7 is indicating a QPA fan fault. 2006-Mar-31 23:19:10 RHIC QPA Power supply b03qd7 has a fan fault / installing jumper as per D. Bruno / Fault cleared and supply is back on. [rhic]	QPA Fan
2-Apr-06	20:48:08	y8-q6	990092	QP08	8B	PR-016	2006-Apr-02 21:04:00 The Cryo Control Room reports that no temperature rise has been observed in 7 or 8 o'clock, though a short lived lead flow communications problem was experienced in 4 o'clock after the abort. The QLI appears to have been caused by a QPA fan fault at y8-q6. Contacting D. Bruno. 2006-Apr-02 21:15:00 R. Difranco and H. Ashby have installed a QPA fan fault jumper for y8-q6, per Don's instructions. They will confirm the state of the fan while quench recovery is run. 2006-Apr-02 21:23:00 The QPA fan did not spin up during quench recovery. Don is instructing CAS on swapping out the QPA module. 2006-Apr-02 22:15:00 Rich and Henry have swapped out the QPA for y8-q6. Yellow quench recovery is underway. 2006-Apr-02 23:16:53 2100 Y8-Q6 bad fan on QPA. Replaced the QPA with spare unit s/n 990097. [rhic]	QPA Replaced (Internal Fan Fail)
6-May-06	11:58:45	bi8-qf1			8B	PR-041	13:10 bi8-qf1-gpa fan fault caused the blue link to drop here. -Don Bruno [rhic] [ps]	QPA Fan
6-May-06	12:12:32	bi8-qf1			8B	PR-042	12:57 bi8-qf1-gpa fan fault. I installed a jumper plug and made sure the fans were still spinning and then handed it back to MCR. -Don Bruno [rhic] [ps]	QPA Fan
8-Jun-06	maint	b8-dh0		QP10	8B	maint	31-May-06: QPA generated a Fuse Fault during the High Energy Ramp Test. IR Gun showed one IGBT Warm while another Cold. Possible not sharing the Load at Higher Currents but okay for the current Polarized Proton Run. 8-Jun-06: Found looking from the back, Right IGBT Module Blown. Replaced Module Type: CM600HLA-24H and IGBT Driver Card as well. Tested to 400 amps. Both IGBT's now sharing the load evenly. D. Bruno, G. Heppner, W. Louie	IGBT Module Blown
22-Jun	20:21:43	yi7-sxf	990063	QP-02	7B	MCR	2006-Jun-22 22:36:58 QPA yi7-sxf fan trouble. As per D. Bruno, we installed a fan jumper, but one fan was not working. Replaced QPA. Back on O.K. -cz [rhic] (Replaced unit with s/n 990059) Tech Notes: Replaced bad Fan 028245	QPA Fan
26-Jun-06	6:56:01	yi2-tq6	1048		2B	MCR	At first it was believed that this supply was being ramped too fast. Jun-26-2006 10:16 I think I misdiagnosed the problem with yi2-tq6. After looking at it some more I thought that the reason for the high voltage on the output could be that the energy extraction resistor was always in the circuit. This morning Tom Nolan swapped out the qpa and now it appears to be operating ok. -Don Bruno [rhic] [ps] (6 Events Started on June 25 for a total loss time of 328 minutes for Operations) Team dispatched at 08:05 to replace unit. Finished 08:50:00 (Replaced unit with s/n 990194) Down Time is total of Failures plus Repair Time = 373 minutes	Crowbar

Date	Time	Event	Q&A Ref.	Analysis of Main Power Supplies Issues	Final ID
6-Feb-06	22:00:00	Blue Rise		Offical Hand Off of the Blue Ring to MCR to the AGS Machine Group 22:00:00. Classic reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Rise		2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
15-Feb-06	MCR 6	y-quench		2006-Feb-15 13:15:00 C. Schulteis has been notified of a y-quench solenoid voltage ramp error alarm. C. Schulteis has instructed the MCR to ignore further Cuddihy Voltage ramp error alarms for any of the RHIC main power supplies while the magnets continue to sit at injection most of the time.	Cudd-his alarm
23-Feb-06	19:13:39	y-quench	MCR-012	2006-Feb-23 19:28:53 After running the necessary script the yellow quench came up to park but the dipole did not. The sequence was manually. C. Schulteis is investigating from home. 2006-Feb-23 19:37:07 MCR notes at park. Carl states that this is an anomaly he has not before, he will continue to investigate. Ramping to injection. Editors Note: Yellow Link Fully Restored at 19:39:45 for a Tech Time Loss of 24 minutes	TAPE Studied
19-Mar-06	18:36:00	y-quench	MCR-Carl	2006-Mar-19 18:36:00 We receive an alarm for preMainCurrentWarning on the yellow main dipole. Connecting C. Schulteis to see the alarm response interaction before making any further changes to the state of the RHIC magnets. 2006-Mar-19 19:11:00 Running quench recovery in blue. C. Schulteis is investigating from home, and has asked us to ramp to park once the recovery is complete. 2006-Mar-19 19:35:14 C. Schulteis gives us permission to clear the alarm and run a hysteresis ramp. Carl believes that the GeneralWarningWarning error indication was an artifact of the alarm being ramped to zero after the quench. He will monitor the system from home. 2006-Mar-19 19:35:00 Carl called back, and indicated that the system was performing as expected.	General Current Warning
31-Mar-06	22:37:15	y-quench	PR-017	2006-Mar-31 22:37:00 A Yellow QJ has occurred while the Yellow magnets were sitting at injection field. 2006-Mar-31 22:47:00 C. Schulteis is investigating the cause of the Yellow QJ from home. We received an alarm for y-quench Reg DCT. 2006-Mar-31 23:00:00 Carl expects that the y-quench DCT cannot be clear. He will watch from home while we attempt to recover the Yellow quench link. Due to the fact that we want to do this until after the Blue line has been recovered. (DCTY Refill Error)	Yellow Main Quad Power Supply DCTY Refill Error
4-May-06	18:50:54	y-quench	PR-016	Blue main quad had a Reg watch dog fault. Some thing in the main quad current regulator failed and caused the RTD main quad current to go to zero. (Quench log shows) 19:28 The Blue main quad did not ramp to 50 A/I at the end of the quench recovery sequence. There were no faults from TAPE. Carl Schulteis is taking a break from home. -JLN	Reg Watchdog
26-May-06	9:47:32	y-quench	PR-005	11:05 The error was the Yellow Quad PPSN circuit #1. Investigation after the trip showed the PPSN circuit changed as normally and all the auxiliary circuits were working. The connection to the PLC Yellow Main Quad PPSN Circuit input module were tightened. -CS	Yellow Main Quad PPSN Circuit #1
8-Jun-06	18:00:00	y-quench	Recovery	Yellow Main Dipole tripped on a Current Monitor Fault. The p.v.s were recovered by MCR and no further action was taken at this time. Maintenance Day: Unsuccessful in preventing the trip to full current. Time allowed was 12 hours ~ 70 minutes. Actual Time: 100 minutes. CPEP is responsible for 170 minutes Due to Failure with the Main.	Current Monitor Fault
8-Jun-06	19:00:00	y-quench	Recovery	The blue main quad tripped on a reg watchdog error. A Circuit Breaker was turned off and on again to reset a circuit (DCTP) in the blue main quad O.C. Maintenance Day: Unsuccessful in preventing the trip to full current. Time allowed was 12 hours ~ 70 minutes. Actual Time: 100 minutes. CPEP is responsible for 170 minutes Due to Failure with the Main.	Circuit Breaker #5 to clear Control Problem
11-Jun-06	2:44:56	y-quench	Recovery	CAN: 2006-Jun-11 02:43:14 1050 Complete tripping out 101-090 with open unit. (dic) CAN: 2006-Jun-11 02:44:52 1015 Trouble with blue quad control line Brown instruction as to y-ble breaker #5 in 1050A BRQOCC upper cabinet behind white side door. (dic)	Circuit Breaker #5 to clear Control Problem
16-Jun-06	1:53:08	y-quench	PR-061	Jun-16-2006 02:13 The Yellow main dipole power supply shows a significant drop in current before the trip. Carl is looking from home. JLN: vs. can (This statement indicated the Yellow Main Dipole was the cause when in fact it really was the Yellow Main Quad. QJquench confirmed that y-quench dropped to current which occurred at 01:07 power to C. can. C. Reppert	Reg Error
16-Jun-06	1:53:08	y-quench	Follow Up	Jun-16-2006 02:43 Carl believes that there was a power related problem with the y-quench power supply that caused the trip. He's working while we attempt to recover. JLN: vs. can	Ref to PR-061
17-Jun-06	2:36:10	y-quench	PR-063	The 24 Volt to the P.C. Remote I/O to the Blue Box was momentarily lost causing the Regulator to trip Low, indicating a Quench. The Regulator then blew off the drive to the Power Module SCV's and the Current ceased through the last pair ON, slowly decaying until the Regulator pulled the Link on a Regulator Error.	Reg Error
20-Jun-06	16:00:00	y-quench	High Current Switch Over	Jun-19-2006 03:33 This is very similar to the June 16 QJ Event at 01:53:08 when the Yellow Main Quad power supply's current begins to fall down and the voltage goes into zero. Saw Wave of 103V Peak in Peak. As Carl Schulteis had explained to me the last time this occurred. By looking at the QJ Link Temperature Signal, there was a momentary loss of 24 volts in the P.C. Remote I/O at 01:53:08. This momentary loss caused the dipole to go to Low, indicating a Quench. The Regulator then blew off the drive to the Power Module SCV's and the Current ceased through the last pair ON, slowly decaying until the Regulator pulled the Link on a Regulator Error. Since this is the signal comes back on its own (a possible loose connection) the Recovery can be made without problem but Carl has to reset the software for the Temperature Signal to continue to record data. -G. Reppert (John's logentry)	Reg Error
20-Jun-06	16:00:00	y-quench	High Current Switch Over	Check made in the Blue Box area for loose connections and behind the Blue Box where there are no 24 volt power supplies that provide the power. No loose connections found. Only a slight smell of moisture, which originated from the drive.	Main
20-Jun-06	16:00:00	y-quench	High Current Switch Over	A Computer Bank for filtering purposes was added across the Main Connector 1 and 3 (Reference to Carl Schulteis for details)	Main
22-Jun-06	3:25:21	y-quench	PR-067	2006-Jun-22 03:25:00 Development is off. A Yellow quench link interlock occurred during a reserve top energy, though the beam in Yellow had been lost much earlier (when the RF loops closed). 2006-Jun-22 03:30:00 C. Schulteis was contacted. Since the QJ appeared to be triggered by the y-quench power supply, Carl reports that there was a current monitor fault. Quench recovery has begun 2006-Jun-22 04:05:00 Machine Development: RHIC injection has occurred.	Current Monitor
22-Jun-06	4:14:34	y-quench	PR-068	2006-Jun-22 04:14:00 Development is off. Another Yellow QJ occurred under the same conditions 04:12 Both Carl Schulteis and Fred Orenti are coming in to repair the y-quench problem. JLN: vs. can, can, can 06:27 A problem with y-quench exists that Carl believes we can live with for the remainder of the run. He and Fred have disabled the current monitoring in software in order to allow us to continue with development work, and will discuss the issue with other Power Supply people during the daytime. -JLN, vs. can	Current Monitor
24-Jun-06	Opn Log	y-quench	PR-079	2006-Jun-24 16:30:00 C. Schulteis and F. Orenti are coming in to investigate a problem with the Yellow main quench. The main quench has pulled the yellow quench link 3 times this shift (PPN Faults) well after the power dips had subsided. 2006-Jun-24 20:28:00 Carl and Fred are preparing to replace a bad PPSN relay on the power supply relay board for the y-quench power supply. 2006-Jun-24 21:14:00 Carl reports that the repair is complete. Running Yellow quench recovery. 2006-Jun-24 21:14:00 Quench recovery has failed. Carl and Fred are recovering the y-quench problem again. 2006-Jun-24 23:03:00 Running Yellow quench recovery again. 2006-Jun-24 23:17:00 Quench recovery is complete. Carl reports that a beam wire the supplies +15V to the sensing circuit for PPSN was tightened. This value replaced earlier was probably the cause of the problem. (Major Power Dips for the Weekend)	PPSN (X2)
25-Jun-06	3:46:32	y-quench	PR-081	2006-Jun-25 03:46:00 Another Yellow quench link interlock has occurred, most likely caused by a PPSN fault on the y-quench power supply. 2006-Jun-25 04:10:00 Carl is coming in again to investigate. 2006-Jun-25 04:30:00 Fred is coming in again. 2006-Jun-25 06:30:00 Starting quench recovery. 2006-Jun-25 07:00:00 Quench recovery has failed. Carl and Fred are continuing their work. 2006-Jun-25 07:00:00 C. Schulteis and F. Orenti are working on repairing the cause of multiple QJ's in the Yellow ring. 2006-Jun-25 11:17:00 C. Schulteis and F. Orenti was not able to determine the root cause of the intermittent yellow QJ's.	PPN
26-Jun-06	7:05:41	y-quench	PR-082	While Carl and Fred were working on the Yellow Main Quad PPSN Fault, the Blue Main Quad tripped on a Regulator Error. Telling us Carl, he has to take since they where not working near this time.	Reg Error
26-Jun-06	11:37:16	y-quench	PR-083	The P.C. was accidentally retasked with the old software. It was several hours after recovery when this QJ Event occurred. Carl had to go into the software and make the changes to the newer version C. Schulteis.	Current Monitor
26-Jun-06	6:57:20	y-quench	PR-085	11:52 This Blue QJ Event was caused by the Blue Main Dipole power supply. A Current Monitor Fault developed during the crossovers between Timing and Energy. -G. Reppert (John's logentry)	Current Monitor

AGS Cold Snake Power Supplies

HKPS							
Date	Time	I-dent	S/N	Loc.	QLI Ref:	Analysis of House Keeping Power Supplies	Fault ID
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
6-Feb-06	22:16:59	b12-q6	115	12A	MS-001	Power Supply b12-q6 had tripped to the off state. No action taken, TAPE was able to restore for now. During the day, Techs replaced Control Card, Digital Iso Card and the HKPS.	Off
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
25-Jun-06	14:05:11	yo1-qf8	108	2B	PR-085	Jun-25-2006 18:11 The Yellow Link tripped due to a faulty House Keeping Power Supply for yo1-qf8. I found both fuses had failed and tried replacing them once. The Supply then worked but as MCR had just restored the Blue Link, the Control Power for yo1-qf8 failed once again. This time, swapping out the HKPS fixed the problem. -G. Heppner [rhic] [quench] Replaced with s/n 097	HKPS

Date	Time	I-dent	Sector	QLI Ref.	Analysis of Ice Occurrences	Fault ID
6-Feb-06	22:00:00	Blue Ring			Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring			2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
15-Feb-06	MS-6	Heaters	6		Low Temp Alarm, Team found a faulty heater and replaced.	Low Temp
15-Feb-06	MS-6	Heaters	4		Low Temp Alarm, Team found three (3) faulty heaters in this section and replaced.	Low Temp
16-Feb-06	Maint	Heaters	8		Ice ball tree heaters were investigated, all were found to be operational, no repairs needed	Low Temp
16-Feb-06	Maint	Heaters	10		Ice ball tree heaters were investigated, all were found to be operational, no repairs needed	Low Temp
16-Feb-06	Maint	Heaters	12		Ice ball tree heaters were investigated, all were found to be operational, no repairs needed	Low Temp
17-Feb-06	20:15:00	Valve Box			2006-Feb-17 20:15:00 G. Ganetis was contacted about a 6 o'clock valve box temp out of range alarm, and also to find out about the potential impact of missing all of the temp and humidity data from 1008. He will investigate the 6 o'clock alarm, and feels that the 1008 problem is not so critical that it needs to be resolved overnight. A message was also left for W. Louie. 2006-Feb-17 23:59:00 Wing returned our call. We will attempt to contact H. Hartmann again about the "no Labview data" alarms first thing in the morning on Saturday.	
21-Feb-06	23:16:00	PN7Q51 CB44	6		22:46:47 G Ganetis has contacted MCR regarding low temperatures in the 6 o'clock rotator region. He believes that the heaters for preventing iceballs may be off in that area. D. Bruno has instructed CAS in turn on the heaters; they will go in when we ramp down next. 2006-Feb-21 23:16:00 Ramping down from full energy in RHIC. Preparing for CAS access to repair ice-ball heaters in the 6 o'clock sector. 2006-Feb-21 23:27:00 Machine development off. Access into RHIC begins. 2006-Feb-21 23:30:00 Access complete. CAS reset breaker #4 at panel YQ51 for the heaters.	Breaker Trip
24-Feb-06	8:56:13	Temp String	B and Y 10 and 11		Loss communication (IceBall No LabView Data) with Blue and Yellow Sectors 10 and 11. An AC Reset was performed using FTT. However, this reset requires an Operator to wait 45 minutes until the system is restored and data begins to read once again. This has happened before (reference to 17-Feb-06) and has been taken up with the Specialist as to why this takes so long and what can be done to fix the long wait. W. Louie.	IceBall Data
28-Feb-06	7:20:16	Y10-17TB	10		Sensor not responding. (Iceball No LabView Data)Secondary sensor reading okay, to be replaced during next maintenance day March 1, 2006.	Sensor Fail
1-Mar-06	maint	Y10-17TB	10		Sensor Failed d0000003FCBD128 replaced with ID # 8A0000047298E28 and Database updated.	
2-Mar-06	13:20:17	b2-15TB	2		Sensor not responding. Tried an AC Reset but did not work. Put on the RING Access list as a low priority as the redundant sensor is reading fine. Will replace next maintenance day if not allowed access before hand.	Sensor Fail
3-Mar-06	Multiple	y10 string	10		System showing entire string fails (not responding) and then clears. This has happened several times and system re-boots by the experts seemed to not work. Put on the maintenance day list for access to investigate a possible loose wiring connection.	Sensor Fail
9-Mar-06	Ring Entr	b2-15TB	2		Sensor was fine, wrong Address ID was placed into the data base and had to be corrected.	
10-Mar-06	Multiple	y10 string	10		Has been working since possible AC Reset back on 3-Mar-06 so no action is needed as of this writing	
8-Apr-06	9:45:00	PN1Q52 Bnk #1	1		2006-Apr-08 09:45:00 W. Louie has been notified of 11 iceball temp out of range alarms for Blue and Yellow in sector 1 that started coming in around 08:00. 2006-Apr-08 11:45:00 As prompted by STAR, an agreement has been reached to extend the store by one hour. D. Bruno has informed the MCR that the iceball breaker in sector 1 will need to be reset by CAS after the current store is dumped. PHENIX will also make a short arc at that time. 2006-Apr-08 13:35:00 Setup is off. After performing some beam diagnostics at store, the beam has been aborted. CAS, STAR, and PHENIX are making RHIC accesses now. cfe-bb-shm2 was reset to clear a suspended task. 2006-Apr-08 14:05:00 T. Costanzo and J. Decicco have successfully reset breaker #1 at panel PN1Q52 to restore the iceball heater tree power in sector 1. Don has confirmed that the lead low temp alarms are in the process of clearing.	Breaker Trip
30-Apr-06	17:28:00	PN3Q52 Bnk #9	5		MCR: 2006-Apr-30 18:58:53 G. Ganetis is contacted at the request of Cryo regarding temperature out of range alarms that have been received. 2006-Apr-30 19:11:32 G. Ganetis reports that the heaters are off for 5 o'clock rotators. He indicates that the heaters will need to be reset at the end of the store. Contacting D. Bruno who will give CAS instructions on how to revive the heaters. CAS: 2006-May-01 01:21:50 Had to reset a breaker for the heaters to stop the ice balls from forming at RHIC sector 5. Found that the breaker was in the voltage range of 240v and below and suited up in the appropriate PPE. Also had 2 person that were trained to operate the breaker. Reset breaker #9 in panel pn3Q52 as per D. Bruno. [pic]	Breaker Trip
1-May-06	2:07:09	PN3Q52 Bnk #9	5		2006-May-01 06:00:00 Cryo reports that the ice-ball problem in sector 5 has not cleared. This problem will require revisiting when this store ends. Ice Team Granted permission 11:00, keys in hand at 11:18. Problems Found: Hypot of Klixons to 300 volts, one failed at 200 volts at B5-Rot3-12 (2nd back from DX Magnet). Also discovered a Fan fail on Y5rot3-17 (2nd back from DX Magnet). Due to time restrictions and the Mechanical insillulation, Team safely applied new fan on top of original. (Should be looked at next maintenance day) Keys returned: 13:50.	Breaker Trip
3-May-06	10:26:21	y10 string	10		System showing entire string fails (not responding). Put on the maintenance day list for access to investigate possible loose wiring connection.	Sensor Fail
10-May	Maint	y10 String	10	Ref to May 3	Ice Team found Sensor Y10-02TB d0000003FA81928 (Shorted and replaced with ID #: 32000000388C2F28. Data base updated and restarted. BK and W. Louie	Repair
11-May	5:17:29	PN1Q52 Bnk #1	1		Temp Out of Range for Blue and Yellow DX then Q4 Magnets in Sector 1. Ice Team granted access at 08:30 to locate problem. May-11 2006 13:04, a ground fault circuit breaker that feeds the sector 1 DX Q4 magnet tree heaters and thermostats in sector 1 tripped this morning. After resetting it once the problem had to be investigated because it tripped again after 10 minutes. Rich Conte and Joe Drozd hi-pototed each thermostat and heater on this string. They narrowed the problem down to 2 thermostats on the yellow Q2 tree. One thermostat on the extension tube was replaced and re-connected with its heater. The other heater was working and we don't believe it was a problem but it would have taken a very long time to replace its associated thermostat so this thermostat and heater were left disconnected and a fan was placed here to stop ice from developing. On the next maintenance day we replace this thermostat and reconnect it and the heater to the circuit. -Don Bruno [pic] [ps]	Breaker Trip
21-May	4:05:47	Temp String	B and Y 6 and 7		Alarm Log indicated IceBall No LabView Data and cleared at 05:28:13. No explanation found as of this writing.	IceBall Data
21-May	16:13:32	Temp String	B and Y 4 and 5		Alarm Log indicated IceBall No LabView Data and cleared at 18:17:49. No explanation found as of this writing.	IceBall Data
31-May	Maint	YQ2	1		(Reference to 11-May) Replaced YQ2 Thermostat and heater	Thermostat / Heater
31-May	22:36:06	PN3Q52 Bnk #3	3		W. Louie has given instructions to CAS to turn on a circuit breaker for an ice ball heater in RHIC above 3c sometime during the morning. G. Ganetis & company will also investigate the problem with a possible bad cable that cause the second ramp to fail during this shift.	Breaker Trip
1-Jun	9:54:00	PN3Q52 Bnk #3	3		June 1, 2006 Tunnel Access granted due to a QLI Event, Rich Conte and Tom Nolan went in to work on the Snake Tree heater problem in sector 3. They found high leakage current on one of the thermostats after hi-potting them. They replaced the thermostat and the circuit breaker is not tripping anymore.	Repair
6-Jun	7:43:52	Temp String	B and Y 4 and 5		Alarm Log indicated IceBall No LabView Data and cleared at 09:28:35. No explanation found as of this writing.	IceBall Data

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Date	Magnet ID	Sector	Ring	Analysis	Limitations	References	Results
01-Apr-03	bi9-snk7-2.3	9C	Blue	A resistor short to ground internal of the magnet required that the QPA center tap to the resistor in parallel with the magnet load (ground wire monitor circuit) had been removed to continue with the Polarize Proton Run.	None	George Ganetis	Magnet Removed during summer shutdown and repaired.
17-Apr-03	yo9-snk7-2.3	9C	Yellow	comment by Ganetis... BIG PROBLEM!!! It looks like yo9-snk7-2.3 has one of its magnets open. Magnet # 2 has a break in its superconductor and the current is only going through its internal quench protection resistor. This is the initial finding, more analysis will be done to try to find the cause or when this failure happened	Unable to Run	RHIC Physics Run 2002 - 2003, Daily Quench Events for the Month of April 2003	Internal Magnet Open. Removed and repaired during summer shutdown.
Pre-Run FY04	yi7-q6		Yellow	Unable to go above 30 amps due to higher then normal magnet resistance.	Current Limited	George Ganetis / Don Bruno	Magnet removed and repair team found a Cold Solder Joint in the Super Conducting wire.
24-Nov-04	b2-dhX	2	Blue	Because the magnet clearance to the ground is lower then other dhX magnets, an extra fan had been installed due to extra Ice formation around the tree-leads.	None	Phone call by Wing Louie, November 24, 2004	More Air flow to remove condensation.
29-Nov-04	D6 thru D8	10	Yellow	D6 Shunt Buss Short to Ground had been discovered. (11-30-04) testing in progress to isolate the problem and to decide on a fix or run with special ops. (Problem went away when warm up was done and Hypot testing to locate the short) The D6 Super-conducting Tap was disconnected at the time of inspection once the magnet was opened up because it is not used and believed the short may have occurred there.		George Ganetis	Repaired
02-Dec-04	Y12-Q3	12	Yellow	Q7 Shunt Buss to Q9 Short to Ground occurred and then Super-conductor open during High Energy Testing. Magnet warmed and opened where the problem was located in the Q3 splice. (Unexpected shutdown of Physics to repair 29-Nov-04 problem along with this major problem. Time Down Delay = 2 1/2 weeks)		George Ganetis	Repaired
	12Q6	12	Blue	Blue Sector 12, Q6 Shunt Buss has an 83 uohm resistance when powered to 120 amps during the Proton 205 GeV test.		George Ganetis	during the summer shutdown 05 to try and locate the high resistance to a smaller group of magnets for the next cold run.
30-Mar-05	AGS Cold Snake	AGS	Orange	<i>History in the making, First Cryogenic Cooled Magnet placed into the AGS Ring!</i>	Commissioning Run	Gregory P. Heppner	<i>WORKS!!!</i>
04-Apr-06	yo4-cqs9	5A	Yellow	Physics indicated that magnet YO4-CQS9 at the end of the yo5-sxd sextupole string was in a reverse polarity state. Switched lead at the terminal block (power side) so now Power Lead BLK is on #3 + along with Crowbar Red and Power Lead RED is on #4 - along with Crowbar Blk. G. Heppner	None	Don Bruno	<i>Fixed but has to be swapped on the Magnet side not the DC Cable side like it is now.</i>

Date		Time		Employee ID		Department		Job Title		Payroll Data		Tax and Social Security Data		Other Deductions and Notes		Total	
Month	Year	Start	End	Emp ID	Dept	Job Title	Rate	Hours	Pay	Gross Pay	FICA	Medicare	SS	Other	Net Pay	Notes	
2024	01	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	02	01	29	1001	HR	HR Assistant	\$15.00	38	\$570.00	\$570.00	\$42.75	\$14.25	\$28.50	\$0.00	\$484.50		
2024	03	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	04	01	30	1001	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	05	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	06	01	30	1001	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	07	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	08	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	09	01	30	1001	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	10	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	11	01	30	1001	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	12	01	31	1001	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	01	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	02	01	29	1002	IT	IT Support	\$18.00	38	\$684.00	\$684.00	\$51.30	\$17.25	\$34.50	\$0.00	\$581.25		
2024	03	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	04	01	30	1002	IT	IT Support	\$18.00	39	\$702.00	\$702.00	\$52.65	\$17.70	\$35.40	\$0.00	\$593.65		
2024	05	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	06	01	30	1002	IT	IT Support	\$18.00	39	\$702.00	\$702.00	\$52.65	\$17.70	\$35.40	\$0.00	\$593.65		
2024	07	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	08	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	09	01	30	1002	IT	IT Support	\$18.00	39	\$702.00	\$702.00	\$52.65	\$17.70	\$35.40	\$0.00	\$593.65		
2024	10	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	11	01	30	1002	IT	IT Support	\$18.00	39	\$702.00	\$702.00	\$52.65	\$17.70	\$35.40	\$0.00	\$593.65		
2024	12	01	31	1002	IT	IT Support	\$18.00	40	\$720.00	\$720.00	\$54.00	\$18.00	\$36.00	\$0.00	\$612.00		
2024	01	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	02	01	29	1003	Finance	Finance Analyst	\$22.00	38	\$836.00	\$836.00	\$62.70	\$21.25	\$42.50	\$0.00	\$711.25		
2024	03	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	04	01	30	1003	Finance	Finance Analyst	\$22.00	39	\$858.00	\$858.00	\$64.35	\$21.70	\$43.40	\$0.00	\$732.65		
2024	05	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	06	01	30	1003	Finance	Finance Analyst	\$22.00	39	\$858.00	\$858.00	\$64.35	\$21.70	\$43.40	\$0.00	\$732.65		
2024	07	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	08	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	09	01	30	1003	Finance	Finance Analyst	\$22.00	39	\$858.00	\$858.00	\$64.35	\$21.70	\$43.40	\$0.00	\$732.65		
2024	10	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	11	01	30	1003	Finance	Finance Analyst	\$22.00	39	\$858.00	\$858.00	\$64.35	\$21.70	\$43.40	\$0.00	\$732.65		
2024	12	01	31	1003	Finance	Finance Analyst	\$22.00	40	\$880.00	\$880.00	\$66.00	\$22.00	\$44.00	\$0.00	\$748.00		
2024	01	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	02	01	29	1004	Marketing	Marketing Specialist	\$20.00	38	\$760.00	\$760.00	\$57.00	\$19.25	\$38.50	\$0.00	\$642.25		
2024	03	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	04	01	30	1004	Marketing	Marketing Specialist	\$20.00	39	\$780.00	\$780.00	\$58.50	\$19.70	\$39.40	\$0.00	\$661.60		
2024	05	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	06	01	30	1004	Marketing	Marketing Specialist	\$20.00	39	\$780.00	\$780.00	\$58.50	\$19.70	\$39.40	\$0.00	\$661.60		
2024	07	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	08	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	09	01	30	1004	Marketing	Marketing Specialist	\$20.00	39	\$780.00	\$780.00	\$58.50	\$19.70	\$39.40	\$0.00	\$661.60		
2024	10	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	11	01	30	1004	Marketing	Marketing Specialist	\$20.00	39	\$780.00	\$780.00	\$58.50	\$19.70	\$39.40	\$0.00	\$661.60		
2024	12	01	31	1004	Marketing	Marketing Specialist	\$20.00	40	\$800.00	\$800.00	\$60.00	\$20.00	\$40.00	\$0.00	\$680.00		
2024	01	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	02	01	29	1005	Operations	Operations Manager	\$25.00	38	\$950.00	\$950.00	\$71.25	\$23.75	\$47.50	\$0.00	\$808.25		
2024	03	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	04	01	30	1005	Operations	Operations Manager	\$25.00	39	\$975.00	\$975.00	\$73.13	\$24.25	\$48.50	\$0.00	\$826.63		
2024	05	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	06	01	30	1005	Operations	Operations Manager	\$25.00	39	\$975.00	\$975.00	\$73.13	\$24.25	\$48.50	\$0.00	\$826.63		
2024	07	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	08	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	09	01	30	1005	Operations	Operations Manager	\$25.00	39	\$975.00	\$975.00	\$73.13	\$24.25	\$48.50	\$0.00	\$826.63		
2024	10	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	11	01	30	1005	Operations	Operations Manager	\$25.00	39	\$975.00	\$975.00	\$73.13	\$24.25	\$48.50	\$0.00	\$826.63		
2024	12	01	31	1005	Operations	Operations Manager	\$25.00	40	\$1000.00	\$1000.00	\$75.00	\$25.00	\$50.00	\$0.00	\$850.00		
2024	01	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	02	01	29	1006	Legal	Legal Counsel	\$30.00	38	\$1140.00	\$1140.00	\$85.50	\$28.75	\$57.50	\$0.00	\$973.75		
2024	03	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	04	01	30	1006	Legal	Legal Counsel	\$30.00	39	\$1170.00	\$1170.00	\$87.75	\$29.25	\$58.50	\$0.00	\$991.25		
2024	05	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	06	01	30	1006	Legal	Legal Counsel	\$30.00	39	\$1170.00	\$1170.00	\$87.75	\$29.25	\$58.50	\$0.00	\$991.25		
2024	07	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	08	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	09	01	30	1006	Legal	Legal Counsel	\$30.00	39	\$1170.00	\$1170.00	\$87.75	\$29.25	\$58.50	\$0.00	\$991.25		
2024	10	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	11	01	30	1006	Legal	Legal Counsel	\$30.00	39	\$1170.00	\$1170.00	\$87.75	\$29.25	\$58.50	\$0.00	\$991.25		
2024	12	01	31	1006	Legal	Legal Counsel	\$30.00	40	\$1200.00	\$1200.00	\$90.00	\$30.00	\$60.00	\$0.00	\$1020.00		
2024	01	01	31	1007	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	02	01	29	1007	HR	HR Assistant	\$15.00	38	\$570.00	\$570.00	\$42.75	\$14.25	\$28.50	\$0.00	\$484.50		
2024	03	01	31	1007	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	04	01	30	1007	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	05	01	31	1007	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	06	01	30	1007	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	07	01	31	1007	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	08	01	31	1007	HR	HR Assistant	\$15.00	40	\$600.00	\$600.00	\$45.00	\$15.00	\$30.00	\$0.00	\$510.00		
2024	09	01	30	1007	HR	HR Assistant	\$15.00	39	\$585.00	\$585.00	\$43.88	\$14.63	\$29.25	\$0.00	\$497.22		
2024	10	01	31	1007	HR	HR Assistant	\$15.0										

AGS Cold Snake Power Supplies

Date	Time	I-ident	S/N	Loc.	QLI Ref:	Analysis of Gamma-T	Fault ID
10-Oct-05	Prep Run 6	yo9-qgt		9C		Yo9-qgt in 9C was in the OFF state on 10/8/05. This was a problem in run 4 but not run 5. Keep an eye on this. D. Bruno	Off
26-Oct-05	Run 5	yo9-qgt		9C		Don reported that this unit tripped to the Off state twice this month. It was decided to replace the 3U chassis with a spare unit. Supply was in standby when arrived and took a little time to investigate D connectors and other key elements but could not get the unit to fail. Replaced 3U chassis and used the original cards. Did notice that the CPU for the Control Card was not properly seated whereas the pins were not centered in the socket but rather all off to the sides of the corresponding connections. Removed unit in 7W: Nothing obvious loose but did notice that the jumper wire used to replace the fuses did look like cold solder joints. Re-flowed solder and unit is now in the test rack in Standby Mode. Will continue to monitor its progress. G. Heppner	Off
07-Nov-05	Prep Run 6	yo9-qgt		9C		Yo9-qgt-ps tripped OFF again. D. Bruno	Off
10-Nov-05	Prep Run 6	yo9-qgt		9C		Yo9-qgt tripped to the off state again!!!! I turned it back on. D. Bruno	Off
16-Nov-05	Prep Run 6	yo9-qgt		9C		Don reported that this unit still tripped to the Off state after replacing the 3U Control chassis. Node Card Cable was the next thing to be replaced. Supply still tripped to the Off State after this swap. J. Wilkie	Off
22-Nov-05	Prep Run 6	yo9-qgt		9C		Found yo9-qgt tripped to the off state again!!! We have already replaced the 3u chassis and node card cable, what to do next???? D. Bruno	Off
28-Nov-05	Run 5	yi10-qgt		11A		Don reported that this unit had tripped to the Off state. No Action Taken As of this writing.	Off
17-Jan-06	Prep Run 6	yo9-qgt		9C		Don reported that this unit had tripped to the Off state. No Action Taken As of this writing.	Off
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
4-Feb-06	Prep Run 6	bo3-qgt		3C		Jump card swapped out because the capacitor voltage went past the Hi-VCMD tripping the power supply on CAP-OV. Put spare card from 1007W and cap voltage didn't reach HI-VCMD. Took spare out of floor test unit in 1007W and this card worked. Jim O. now has all the spare cards for repair. D. Bruno	Cap-OV
8-Mar-06	11:24:17	yo9-qgt		9C		While observing Alarm Page, yo9-qgt tripped again indicating "No PS / Illegal State". No complaints from MCR, talked to Don about it and he said it has been tripping to the Off State multiple times in addition to yi10-qgt doing the same. Put onto maintenance list. Later after lunch I checked it at it was on! Mystery.	Off
10-Mar-06	11:26:00	yi10-qgt		11A		2006-Mar-10 11:26:00 Yi10-qgt-ps has tripped on a crowbar fault, we are unable to reset this supply using normal methods. D. Bruno has been contacted for assistance. 2006-Mar-10 11:45:00 D. Bruno has restored yi10-qgt-ps, he informed us that the supply has been problematic as of late and he is planning to replace it during the next maintenance period. (Tech Note: MCR Could not recover to the On status because they did not reset the wfg to zero. This was still set at 7 amps and when the supply was turned on, it would immediately crowbar)	Crowbar
15-Mar-06	maint	yi10-qgt		11A		Did a full Inspection (Shake Rattle and Rolled chssis, checked all D connectors, AC Power Points, Opened 3U Chassis for internal inspection of loose connections, possible Control Card sensitive to the touch (found CPU chip not aligned properly in the socket), other than that, found no obvious problems. Talked to Experts and decided to jump out the HKPS Under voltage circuit by removing pins 5 (Green) and 6 (Blue) from the J16 Molex connector on the Backplane board and replaced with a jumper. This will not harm any operations of the Gamma-T but will allow us to further investigate this circuit within the HKPS. GH	Off
15-Mar-06	maint	yo9-qgt		9C		Jumped out the HKPS Under voltage circuit by removing pins 5 (Green) and 6 (Blue) from the J16 Molex connector on the Backplane board and replaced with a jumper. This will not harm any operations of the Gamma-T but will allow us to further investigate this circuit within the HKPS. GH	Off

Date	Time	I-dent	S/N	Loc.	QLI Ref:	Analysis of 300 Amp Suncraft	Fault ID
05-Aug-05	Prep for Run 6	y12-q89	5	2B		While testing IGBT's for failures, s/n 005 indicated no good. Also the internal Power Resistor that is 10 ohms, was reading around 800 ohms. Replaced supply to repair same. Jeff W. Shorted IGBT / Faulty Power Resistor	
02-Feb-06	Prep for Run 6	y4-q89	16	4B		During the Summer Dynapower Re-work, this power supply would trip to the off state bringing down the yellow link. Found hardware missing on the power supply side J108 causing the node card cable to intermitt causing a loss in communication. Jeff had added hardware G. Heppner Supply ran fine for awhile and then began to trip to the off state once more. Possible internal damage to the wiring of this J108 connector since it was not checked at the time of hardware replacement. Supply was pulled today by Tome Noland and Jeff Wilkie and replaced with s/n 005. G. Heppner	off
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
11-Feb-06	Prep for 6	y110-q89		6B		swapped out the current regulator card due to fail of Tap Test, bad relays.	1-Reg Relays
15-Feb-06	23:23:05	y6-q89	1	6B	MS-007	23:47 Don Bruno is verifying the QLI analysis from home. -JPI Feb-16-2006 00:35 Don has given instructions to the Support crew on handling y6-q89. First they will swap out the current regulator card. If this doesn't fix the problem, we will probably have to call in a specialist to swap out the entire supply. -JPI, 2006-Feb-15 23:37:00 D. Bruno has been contacted to verify that the QLI was caused by a y6-q89 power supply failure. J. Laster contacted the MCR about the FEC problem. It has been reset to clear a suspended event helper task. 2006-Feb-15 23:55:00 Don is instructing CAS to swap out the current regulator card for y6-q89. 2006-Feb-16 00:55:00 The current regulator swap did not clear an error signal indication for y6-q89. CAS will swap out the supply. 2006-Feb-16 02:20:00 T. Costanzo and J. Decicco have completed the swap of power supply y6-q89. Don is testing it from home. 2006-Feb-16 02:38:00 Machine Setup. Running Yellow Quench Recovery. s/n 018 installed.	Error
22-Feb-06	check	b8-q89		8B		While MCR was recovering from a QLI, Don and Joe went out to building 1008B to perform a Tap Test on the Current Reg Card for this supply because readbacks seemed to be off. Tapping on the card proved to improve the readback but did not clear the problem. Current Reg Card needs to be swapped out during the next maintenance day.	
1-Mar-06	maint	b8-q89		8B		Tech report: Current Regulator card was replaced and the original brought back to the shop where Jim O found the K2 Relay was faulty. He repaired the card and returned it to spares.	1-Reg Relays
24-Mar-06	Repair Update	y6-q89	1			Tech Report: 1)Soldered press fit connectors on 3u chassis backplane for DCCT and voltage regulator. 2)Added missing hardware to MADC and Node card D connectors. 3) Replaced hkps because the original one had 8V for the DCCT but the 300A p.s. requires 12V for the DCCT. The new hkps has 12V for the DCCT. 4)When it was first turned on, after repairs 1-3 the contactor would not close because the aux set of contacts was not seated properly. After re-seating the aux set of contacts the p.s. appears to be fixed.	
4-Apr-06	9:20:00	y12-q89		12A	Beam Abort	A Beam Abort took place at 21:06 on April 3, 2006. Comment by George on Apr-04-2006 00:03 The power supply that went un-stable was y12-q89-ps. It has the largest current swing that cause all other p.s. on the qd bus to react. -Ganetis [yellow] [ps] Tech Report: Controls failure this morning. Tech Team is replacing the supply during this down time.	Voltage Unstable
4-Apr-06	Uns-Maint	y12-q89	6	12A	Beam Abort	Controls failure permitted an Unscheduled Maintenance to occur so s/n 006 that indicated an unstable voltage was replaced by the CEPS Day Crew. s/n 015 installed. TN and JW	Voltage Unstable
8-Jun-06	maint	b9-q89	13	10A	250Gv Test	31-May-06: Power Supply tripped during the High Energy Ramp Test. The Current and Voltage spike and then 3 seconds later the current jumps from -265 amps to -250 amps while Iref remained at -265. Supply eventually failed on Error. 8-June-06: Tech Team replaced supply with s/n 001. T. Nolan, J. Wilkie.	Error
8-Jun-06	maint	b9-q89	1	10A	250Gv Test	New replacement s/n 001 failed High Current test. Smell of burning when Team investigated. Power Supply replaced with s/n 004. T. Nolan, J. Wilkie.	Error
9-Jun-06	20:42:57	b9-q89		10A	PR-056	21:47 It looks like b9-q89 tripped the link. b9-q89 is nested within it but it looks like b9-q89 went first. I turned on both p.s.'s by themselves and ran them up to 2x their operating current and they were fine now. I spoke with MCR and we decided to leave b9-q89 alone for now and if it trips again we can either swap out the current regulator card for b9-q89 or the whole p.s. We will need to call the line crew in if we have to swap out the whole p.s. because the main blue quad must be locked out. I will call CAS now and prepare them in case this has to be done. -Don Bruno [thic] [ps]	Error
10-Jun-06	13:31:16	b9-q89	4	10A	PR-057	Jun-10-2006 14:25 Comment: It looks like b9-q89-ps tripped the blue quench link as it did last night. Failed at -35 amps after running a day. -Don Bruno [thic] [ps] CAS replaced Power Supply s/n 004 with spare s/n 016	Oscillation
10-Jun-06	13:31:16	b9-q89	16	10A	PR-057	Jun-10-2006 18:43 Comment: The spare that was installed in b9-q89 does not have the 15V on the cards in the 3u control basket. (PET, AC Phase, Ring Security Faults will not clear) There is something wrong with it. CAS is going to get another spare. -Don Bruno [thic] [ps] CAS replaced Power Supply s/n 016 with spare s/n 006 (Much Time needed because this consist of the Line Crew being needed and the one spare failed and the process had to be redone)	Spare PS Not functioning properly
12-Jun-06	4:08:27	b6-q89		6B	Beam Abort	05:02 We found the source of the blue beam loss. Corrector supplies b6-q89, b6-q8r, and b5-q89 all show Iref Current range errors at the times of the blue beam loss at 0227 and 0408. All 3 supplies appear to be on the 6b-ps1 front end -cjs, mes, NAK 10:05 Power Supply b6-q89 Started to Oscillate and then cleared. B6-q88 and b5-q89 where affected because they are nested with b6-q89. -G. Heppner [thic]	Oscillation
21-Jun-06	14:51:49	b9-q89	6	10A	PR-066	2006-Jun-21 15:07:00 We encounter a problem with b9-q89 that likely accounts for the quench link interlock. D. Bruno indicates that the power supply must be replaced. The line crew must be called in to assist with locking out the upstream breakers in the substation. Supply failed at -262.54 amps, the power supply failed. Fred Onesti, Gregg Heppner, and Joe Drouot swapped out b9-q89-ps. Replaced Power Supply s/n 006 with spare s/n 016 The new one was run alone up to -270A and then MCR did a hysteresis ramp with it. -Don Bruno [thic] [ps]	Failed at High Current
24-Jun-06	7:11:44	y05-qd3		4B	NL	07:20 y05-qd3 is not coming on through the quench recovery sequence. G. Ganetis has been contacted about the problem. 07:26 George has reset the above mentioned supply and successfully recovered the yellow quench link interlock. (07:11:44, Tape stops 1st time, 07:19:24 Tape stops 2nd time, Tape resumes past y05-qd3 at 07:37:32)	AC Phase

Data Reviewed and Compiled by Gregory P. Hopper

Date	Time	I-dent	S/N	Loc.	QUI Ref:	Analysis of all 50 and 60 amp Correctors	Fault ID
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganets reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. -JLN Yellow ring is ready for operation.	
18-Feb-06	21:57:58	yo5-tv15	24	5B	MCR	22:00 yo5-tv15 is off on an error signal...attempting to reset. -JPI, 22:16 The supply trips each time it is turned on with a Iref error, which seems to slowly climb from zero. Looks like we'll need a tunnel access to swap it out. -JPI, 22:19 Cycling it to off for a while didn't seem to clear the problem, though I may not have waited long enough. While I'm trying this again, Don is looking at the snapshot data from home. -JPI 22:36 yo5-tv15 power supply needs to be swapped. We'll let CAS do that while we're ramping rotators. - CM, VP, Waldo 22:47 I tried to turn on the p.s. because I wanted to try and figure out if it could be a loose connection at the load but I don't think that the load is the problem. When it is swapped out we should have a better idea. -Don Bruno [rhic] [ps] 23:02 Tunnel access to replace yo5-tv15 is underway. The RHIC supplies are at zero (except rotators), and the alcove 5B supplies are off. -JPI, VHS 23:30 yo5-tv15 swap is complete. Support is waiting in the tunnel while we run it at 1A for 5 minutes as a test. -JPI 23:43 The access is complete. yo5-tv15 is running fine. Replaced p/s with s/n 075.	off / error
26-Feb-06	Several	bi1-tv4		1C		MCR Reported that RHIC corrector power supply bi1-tv4 intermittently indicates a false lead flow fault, which clears without intervention. Looking back into SnaoSHOT, this supply has a long history of coming up with a On-Error fault that is not real since the supply continues to run. Will be checked during the next maintenance day.	On-Error
1-Mar-06	maint	bi1-tv4		1C		Tech report: Team found tapping movement of the Node Card Cable would make the fault come and go. They replaced the cable and retested but could not regenerate the fault. Problem solved. BK and RFK.	Node Card Cable
16-Mar-06	11:26:11	yo8-tv9	436	9A	MCR	Supply tripped on and Over Voltage, MCR was in the middle of a store so they elected to wait for assistance. Don got the call the second time it alarmed after they had turned it back on and it tripped on Error (13:18:51), Tech Team dispatched at 13:35:00. Checked external Magnet connections and they were good. Replaced p/s with s/n 353. BK and RFK.	Over Voltage
5-Apr-06	1:48:13	yo9-tv7	328	9C	MCR	Snapshot indicated that this supply first failed at 1:48:13 on an Over Temp / Over Voltage whereas the Voltage went first from 171.864mV and suddenly dropped to -217.132mV eventually dropped to -627.287mV then to 0mV. Iref and Current seen operating at 1.93 amps, the Iref eventually began to climb upwards to 10 amps while the Current signal sailed to ~50 amps. 2006-Apr-05 04:11:02 We encounter a power supply in RHIC that has tripped and will not reset: yo9-tv7. Several attempts at resetting the supply are unsuccessful. The trip appeared to have occurred when the ring was dropped to safe mode by MCR due to a LINAC Failure. No Beam in the machine, D. Bruno is called for assistance. 2006-Apr-05 05:58:29. Replacement of RHIC power supply yo9-tv7 is complete. Replaced p/s with s/n 436.	Over Temp / Over Voltage
1-May-06	7:33:23	yo4-tv17			Snapshot	While reviewing Snapshot for problems, noticed this supply had tripped to the off state whereas yo4-tv17-ps rails to the maximum output of 50 amps even though the wfg tells it to stay at zero. This p.s. tripped to the Off state and that is why the signals all look like they go to maximum values. This could be a p.s. problem or looses ac connections at the p.s. -Don Bruno [rhic] [ps]	IrefCurrentRangeError (OD)
2-May-06	1:34:15	yo5-tv17			MCR	Iref Rails to the Maximum in the Positive Direction while the Current Rails Maximum in the Negative Direction. MCR Resets according to the Alarm Log at 01:40:39. This p.s. tripped to the Off state and that is why the signals all look like they go to maximum values. This could be a p.s. problem or looses ac connections at the p.s. -Don Bruno [rhic] [ps]	Off
3-May-06	8:30:00	yo4-tv17	11	5B	MCR	Tech report: Team found Inner Cooling Fan had failed. Replaced p/s with s/n 415. BK and RFK.	Cooling Fan
3-May-06	8:30:00	yo5-tv17		5B	MCR	Tech report: Team found loose AC Connection at the rear of the power supply. Din rail appeared to be tight. BK and RFK.	
6-May-06	2:39:53	bi8-dod2	569	9A	MCR	2006-May-06 03:24:00 Power supply bi8-dod2 tripped on an overtemp fault while running with a zero setpoint. Since the fault cannot be cleared, we will leave it off for now. p' source conditioning has been completed.	Over Temp
10-May-06	maint	bi8-dod2	569	9A	Ref May 6	Maintenance Day, Power Supply was swapped out and replaced with s/n 634. BK and RFK.	
11-May-06	3:54:09	yi3-dt5	185	3C	MCR	2006-May-11 04:00:00 yi3-dt5 trips on iref range error if the setpoint ramps below -1A. Greg has applied a -2.6mm 3 bump at s=3110m to avoid the problem for now. May-11-2006, Received the call from Don to enter Ring. Keys received at 08:50 and completed job at 10:25 (RF Area Access) Corrector Power Supply yi3-dt5 was replaced and tested. -B. Karpin, G. Hoppner [rhic] [ps]	Error
29-May-06	8:55:42	Node Card		9A	N/L	Physics is off, a fairly severe power dip appears to have occurred. Multiple resets required, J. Drozd was called in to assist CAS where he had to reset a node card in alcove 9a.	Reset Node Card 9A-R4
3-Jun-06	3:48:04	Node Card		7A	N/L	11:28:49 D. Bruno was contacted about the Reset Node Card alarms that came in overnight. 11:45:52 D. Bruno indicates that a brief access into the ring is needed to reset the card locally, or to swap out the card entirely. The card swap will require the supplies to be ramped to zero. Experimenters at 1010 are going to take advantage of the access time as well. 12:25:00 CAS was able to reset the node card locally. All power supplies are back on. Experimenters at 1010 have been notified. 14:12:41 Went into 1007A alcove to reset node board for D. Bruno. [rhic] (Alcove 7A Rack #2 Supplies affected: bo6-tv3, bo6-qs, bo6-ocf, bo6-ocd, bo6-qgt, bo6-as3, bo6-oc3, bo6-dod3, bo6-rot3-1.4 and bo6-rot3-2.3)	Reset Node Card 7A-R4
14-Jun-06	10:14:26	Node Card		7A	N/L	Eleven corrector power supplies in the yellow ring tripped at -1015 to the off state (no faults) for no apparent reason. The supplies are all located on cfe-7a-ps2. We leave the supplies off for now at the request of K. Brown to avoid the risk of disrupting beam operations. -LH There is a "Local, Reset Node Card" yi6-tv14, th13, tv12, th11, tv10, th9, tv8, th7, tv6, th5 and tv4. Alcove 7A, cfe-7a-ps2, Rack #6. Don called MCR and it cleared by itself. No action taken. G. Hoppner	Reset Node Card 7A-R6 (Cleared by itself)
14-Jun-06	21:12:26	Node Card		7A	N/L	At 21:12:26, Node Card 7A-R6 in Alcove 7A tripped all the supplies in that rack (11 in total) with a "Local Reset Node Card" Alarm. Don Bruno was notified and contacted CAS with the proper procedures for replacing this chassis. 2006-Jun-14 23:35:00 CAS is entering gate 6GE3 to repair the node card in the 7a alcove. 2006-Jun-15 00:15:00 The repair of the node card in 7a is complete, the power supplies are all on and tested as per D. Bruno's instructions. (Node Card Chassis Replaced)	Reset Node Card 7A-R6
23-Jun-06	5:56:57	Node Card		11A	N/L	Power Dip, Node Card Chassis required Manual Reset.	Reset Node Card 11A-R2
23-Jun-06	5:56:57	Node Card		1C	N/L	Power Dip, Node Card Chassis required Manual Reset.	Reset Node Card 1C-R2

AGS Cold Snake Power Supplies

Date	Time	I-dent	S/N	Loc.	QLI Ref:	Analysis of Timing Resolvers	Fault ID
6-Feb-06	22:00:00	Blue Ring				Official Hand Off of the Blue Ring to MCR for Run 6, Machine Setup 22:00 G. Ganetis reports that Power Supply work is done for tonight. A successful ramp of the magnets has been performed. The RHIC magnets have been left at park.	
11-Feb-06	23:00:00	Yellow Ring				2006-Feb-11 23:00:00 George is done for the night, and has given us the green light. –JLN Yellow ring is ready for operation.	